

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 43

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte DANH C. TRAN and PABLO C. PUREZA

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Appeal No. 1998-1974  
Application 07/415,923

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ON BRIEF

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Before JERRY SMITH, DIXON, and BARRY, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1, 8, 9, 13, 21 and 22. Claims 2-6, 10-12 and 14-19 have been canceled. Claims 7

and 20 have been indicated to contain allowable subject matter.

The disclosed invention pertains to an apparatus for drawing a fluoride glass fiber from a fluoride glass rod preform. More particularly, the invention is directed to the control of a heating zone within a chamber so that the fiber can be drawn from the preform without appreciable crystallization. A reactive gas is also introduced into the chamber to remove contaminants from the fiber by chemical reaction.

Representative claim 1 is reproduced as follows:

1. An apparatus for drawing a fluoride glass fiber from a fluoride glassrod preform having a longitudinal axis which comprises:

an insulated vessel having a top wall, a bottom wall, side walls connected to define a chamber therein for heating said preform, an entrance opening in said top wall through which said preform enters and an exit opening in said bottom wall through which said glass fiber exits;

means within said chamber for heating a zone therein to a uniform temperature of such magnitude that said preform softens and flows when in said zone, said zone being so narrow that said fiber can be drawn from said preform without appreciable crystallization;

means in communication with said heating zone and said heating means for controlling the temperature within said zone to  $\pm 0.5^{\circ}\text{C}$ ;

means connected to said insulated vessel at said entrance opening thereof for preventing convection currents around said preform but allowing said preform to move through said means and into said heating zone;

means for moving said preform along its longitudinal axis into said heating zone at a predetermined speed;

means for passing a stream of reactive gas around said preform and fiber so as to flush the surfaces of said preform and fiber with said reactive gas, thereby removing contaminants therefrom by chemical reaction and elimination of air; and

means for pulling said fiber from said preform.

The examiner relies on the following references:

Siegmund	3,890,127	June 17, 1975
Kaiser	4,030,901	June 21, 1977
Kawashima et al. (Kawashima)	4,249,925	Feb. 10, 1981

The following rejections are before us on appeal:

1. Claims 1, 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Siegmund.<sup>1</sup>

2. Claims 1, 8 and 9 stand rejected under 35 U.S.C. § 102 as anticipated by the disclosure of Kaiser, or in the

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<sup>1</sup> The alternative final rejection of these claims under 35 U.S.C. § 102 was withdrawn in the answer.

alternative, under 35 U.S.C. § 103 as being unpatentable over the teachings of Kaiser.

3. Claims 13 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over the teachings of Siegmund or Kaiser in view of Kawashima.

4. Claim 22 stands rejected under 35 U.S.C. § 112, first paragraph, as being based on an inadequate disclosure.

Rather than repeat the arguments of appellants or the examiner, we make reference to the brief and the answer for the respective details thereof.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the prior art rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the

examiner's answer.

It is our view, after consideration of the record before us, that the invention of claim 22 is adequately supported by the disclosure. We are further of the view that the evidence relied upon is insufficient to support any of the prior art rejections of claims 1, 8, 9, 13 and 21. Accordingly, we reverse.

We consider first the rejection of claim 22 as being based on an inadequate disclosure. This rejection is based on the written description requirement of 35 U.S.C. § 112. Specifically, the examiner asserts that the original disclosure does not provide support for the invention now recited in claim 22. The examiner finds that the disclosure of the enclosure resting in a groove of the vessel does not support the claimed "enclosure being attached to said heating chamber by a seal" [answer, page 6]. Appellants respond that the disclosure of a bell jar in a groove to prevent convection currents is sufficient to support the recitation of a seal within its usual definition [brief, page 8].

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We agree with the position argued by appellants. The description of the enclosure 25 resting in grooves 26 is sufficient to support a generic recitation of a seal. The artisan would have recognized that the description of enclosure 25 and grooves 26 was intended to create a seal around the open end of enclosure 25. Therefore, the disclosure of this application provides support for the claimed seal. Thus, we do not sustain the rejection of claim 22.

We now consider the rejection of claims 1, 8 and 9 under 35 U.S.C. § 103 based on the teachings of Siegmund. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to

make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the

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pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir.

1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976). Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered [see 37 CFR § 1.192(a)].

The examiner essentially finds that Siegmund teaches all the features of independent claim 1 except for the control of the heating means to maintain the temperature within the heating zone to +/- 0.5°C. The examiner considers such temperature control to have been obvious [answer, pages 3-4].

Appellants make the following pertinent arguments:

1) Siegmund is not directed to drawing a fluoride glass fiber from a fluoride glass rod; 2) Siegmund does not teach an insulated vessel; 3) Siegmund does not teach temperature control within +/- 0.5°C to avoid appreciable crystallization; and 4) Siegmund does not teach use of a reactive gas to remove contaminants by chemical reaction [brief, pages 4-5].

We agree with each of these arguments by appellants.

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Siegmund is not directed to drawing fluoride glass fibers so that Siegmund recognizes none of the heating and temperature constraints required by claim 1. The fact that the vessel in Siegmund is made of stainless steel (not insulated) suggests that temperature control of the type recited in claim 1 to avoid appreciable crystallization was of no concern to Siegmund. The examiner has not presented any evidence on this record to support his assertion that such temperature control would have been obvious for drawing fluoride glass fibers. The examiner has also failed to address the obviousness of a reactive gas as recited in claim 1. Therefore, the examiner has failed to establish a prima facie case of the obviousness of claim 1. Accordingly, we do not sustain the rejection of claims 1, 8 and 9 based on Siegmund.

We now consider the rejection of claims 1, 8 and 9 under 35 U.S.C. §§ 102/103 as being anticipated by the disclosure of Kaiser or as being unpatentable over the teachings of Kaiser. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as

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well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

According to the examiner, the claimed invention is anticipated by Kaiser or is "at least clearly within the pruvew [sic] of Kaiser" and would have been obvious [answer, pages 4-5]. Appellants make the following arguments: 1) Kaiser does not suggest heating so that a fluoride glass fiber can be drawn without appreciable crystallization; and 2) Kaiser teaches use of an inert gas rather than a reactive gas as claimed. The examiner does not address either of these arguments.

As we discussed above with respect to Siegmund, the examiner has both failed to properly read the claimed invention on the disclosure of Kaiser and has failed to identify the differences between the claimed invention and the

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teachings of Kaiser. As a result, the examiner has clearly not addressed the obviousness of these differences.

Therefore, the examiner has once again failed to establish a prima facie case of anticipation or obviousness. Accordingly, we do not sustain either of the alternative rejections of claims 1, 8 and 9 based on Kaiser.

Finally, we consider the rejection of claims 13 and 21 under 35 U.S.C. § 103 as being unpatentable over the teachings of Siegmund or Kaiser in view of Kawashima. We have noted the

deficiencies in Siegmund and Kaiser above. Since Kawashima does not overcome these noted deficiencies, we do not sustain either rejection of claims 13 and 21.

In summary, we have not sustained any of the examiner's rejections of the appealed claims. Therefore, the decision of the examiner rejecting claims 1, 8, 9, 13, 21 and 22 is reversed.

REVERSED

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JERRY SMITH	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
JOSEPH L. DIXON	)	
Administrative Patent Judge	)	APPEALS AND
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	)	INTERFERENCES
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LANCE LEONARD BARRY	)	)
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JS:pgg

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